

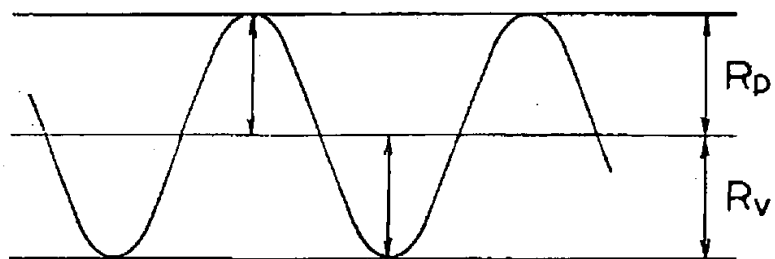
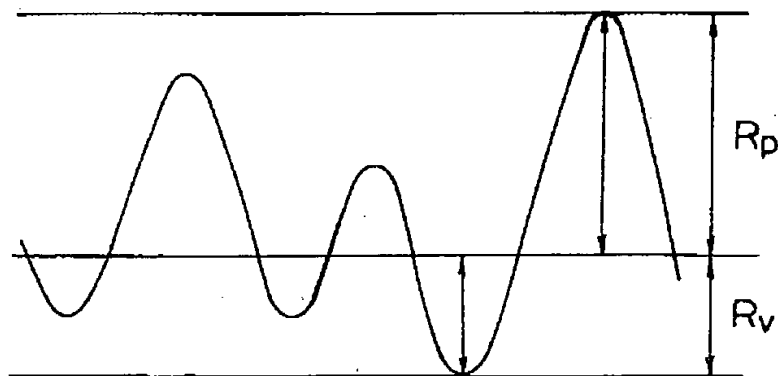
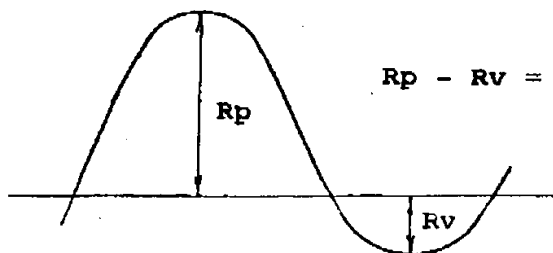
Figure 1Figure 2

Figure 3

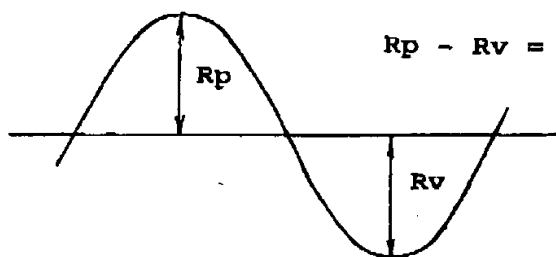
$$[R_p + R_v = \text{constant}]$$

(A)



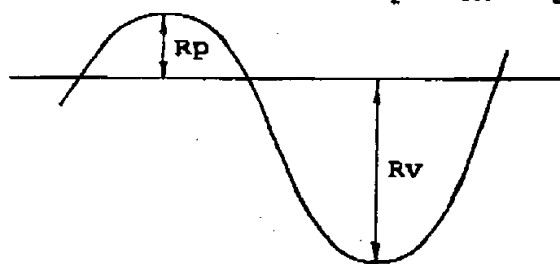
$$R_p - R_v = \text{big } (+)$$

(B)



$$R_p - R_v = \text{zero}$$

(C)



$$R_p - R_v = \text{small } (-)$$

Table 1

| Sample No. | Component | | | | | Result of Evaluation | |
|------------|--|--|-------------------------|-------------------------|----------------------------|-------------------------------------|--|
| | Lower Layer (thickness / μm) | Upper Layer (thickness / μm) | Rp (μm) | Rv (μm) | Rp-Rv (μm) | Number of Particles (p/wafer) | Peeling Life (Number of Lots) |
| 1 | Al(221) | Ti(102) | 42 | 51 | -9 | 17 | 163 |
| 2 | Al(215) | Ti(96) | 55 | 60 | -5 | 14 | 152 |
| 3 | Al(208) | Ti(95) | 48 | 56 | -8 | 16 | 155 |
| 4 | Al(217) | Ti(105) | 58 | 55 | 3 | 12 | 140 |
| 5 | Al(213) | Ti(108) | 52 | 47 | 5 | 15 | 145 |
| 6 | Al(202) | Ti(99) | 63 | 61 | 2 | 11 | 133 |
| 7 | Al(211) | Ti(96) | 66 | 72 | -6 | 15 | 158 |
| 8 | Al(204) | Ti(106) | 57 | 57 | 0 | 9 | 130 |
| 9 | Al(219) | Ti(102) | 69 | 73 | -4 | 13 | 149 |
| 10 | Al(216) | Ti(107) | 61 | 63 | -2 | 12 | 135 |
| 11 | Al(220) | Ti(93) | 72 | 68 | 4 | 14 | 147 |
| 12 | Al(214) | Ti(97) | 68 | 75 | -7 | 16 | 152 |
| 13 | Al(207) | Ti(107) | 61 | 72 | -11 | 21 | 166 |
| 14 | Al(203) | Ti(108) | 59 | 62 | -3 | 13 | 142 |
| 15 | Al(201) | Ti(106) | 57 | 58 | -1 | 11 | 133 |
| 16 | Al(211) | Ti(98) | 54 | 53 | 1 | 10 | 132 |
| 17 | Al(218) | Ti(95) | 51 | 61 | -10 | 19 | 163 |
| 18 | Al(212) | Ti(99) | 70 | 62 | 8 | 25 | 124 |
| 19 | Al(208) | Ti(105) | 69 | 57 | 12 | 31 | 110 |
| 20 | Al(211) | Ti(94) | 71 | 56 | 15 | 42 | 105 |
| 21 | Al(210) | Ti(95) | 57 | 47 | 10 | 27 | 115 |
| 22 | Al(202) | Ti(107) | 77 | 57 | 20 | 51 | 98 |
| 23 | Al(206) | Ti(103) | 54 | 69 | -15 | 34 | 122 |
| 24 | Al(217) | Ti(97) | 57 | 75 | -18 | 42 | 119 |
| 25 | Al(204) | Ti(99) | 57 | 79 | -22 | 54 | 95 |
| 26 | Al(215) | Ti(91) | 58 | 70 | -12 | 30 | 125 |